

REMARKS

This Amendment is fully responsive to the final Office Action dated March 17, 2008, issued in connection with the above-identified application. Claim 1-10, 13-15 and 17 were previously pending in the present application. With this Amendment, claims 1-6, 8-10, 14, 15 and 17 have been amended; and claims 18 and 19 have been added. Accordingly, claims 1-10, 13-15 and 17-19 are now pending in the present application. No new matter has been added by the amendments made to the claims, or by the new claims added. Thus, favorable reconsideration is respectfully requested.

In the Office Action, claim 9 has been rejected under 35 U.S.C. 112, second paragraph, for being indefinite. Specifically, the Examiner alleges that claim 9 is unclear. The Applicants have herein amended claim 9 to help clarify the claim. As amended, claim 9 points out that transmission unit is further controlled to transmit content to the content receiving device starting from a predetermined location and by a predetermined amount before the interruption location. Additionally, the Applicants respectfully point out that claim 1 recites that the content transmission device includes “a storage unit configured to store content” and “a transmission unit configured to transmit content to the content receiving device.” Accordingly, the content stored and transmitted by the transmission unit is not precluded from including content at a predetermined location and by a predetermined amount before the interruption location, as recited in claim 9. Withdrawal of the above rejection to claim 9 under 35 U.S.C. 112, second paragraph, is respectfully requested.

In the Office Action, claims 1-6, 8 and 13-15 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Omura et al. (U.S. Patent No. 6,430,620, hereafter “Omura”) in view of Kikuchi et al. (U.S. Patent No. 7,233,735, hereafter “Kikuchi”). The Applicants respectfully traverse the above rejection to claims 1-6, 8 and 13-15 for at least the reasons noted below.

Specifically, independent claim 1 recites, in relevant part, the following:

“[a] content transmission device for use with, and to be connected with, a content receiving device over a network, said content transmission device comprising: ...

an interruption location capturing unit configured to monitor and capture an interruption

location at which the content receiving device becomes unable to receive content, or an interruption location at which viewing and/or listening of content using the content receiving device has been interrupted; and

“a transmission controlling unit configured to control said transmission unit so as to transmit content in said storage unit to the content receiving device based on the interruption location captured by said interruption location capturing unit...” (Emphasis added).

The present invention, as recited in claim 1, is directed to a content transmission device that includes an interruption location capturing unit and a transmission controlling unit that improves the playing back of content on a receiving device when content is interrupted during transmission, or interrupted by a user of the receiving device. For example, the interruption location capturing unit captures a location of an interruption where a receiving device is unable to receive content, or a location where viewing and/or listening of content on the receiving device becomes interrupted (e.g., by a user). The transmission controlling unit controls the content transmission device to transmit content to the receiving device that corresponds to the interruption location captured by the interruption location capturing unit (see e.g., Fig. 1 and pg. 2, lines 15-35).

The Applicants maintain that the cited prior art fails to disclose or suggest at least the following features of claim 1:

1) a content transmission device for use with, and to be connected with, a content receiving device over a network that includes an interruption location capturing unit that monitors and captures an interruption location at which the content receiving device becomes unable to receive content, or an interruption location at which viewing and/or listening of content using the content receiving device has been interrupted; and

2) a content transmission device for use with, and to be connected with, a content receiving device over a network that includes a transmission controlling unit that controls a transmission unit so as to transmit content in a storage unit to the content receiving device that corresponds to the interruption location captured by the interruption location capturing unit.

In the Office Action, the Examiner relies on Omura at col. 7, lines 54-62 and col. 9, lines 38-49 for disclosing or suggesting the features noted above in claim 1. However, Omura at col. 7, lines 54-62 discloses that the receiving means of a receiving device (i.e., client 470) stores a stream of data in a receiving buffer 412 with a vacant area with numbers having a suffix “p” as packet numbers and numbers having a suffix “f” as position numbers. As described in Omura, the packet receiving means 410 of the client 470 not only controls the packet numbers but also functions to control the position numbers.

Additionally, col. 9, lines 38-49 of Omura discloses that the receiving device (i.e., client 470) includes a re-transfer means 414 that detects whether or not there is any data loss produced in the data stream stored in the receiving buffer 412 of the client 470. If there is a data loss detected, the packet receiving means 414 calculates the position number corresponding to the loss packet and transmits the loss to the data packet transmitting means 411, which then transmits a request for retransmission of the loss data.

As noted above, the features described in col. 7, lines 54-62 and col. 9, lines 38-49 are clearly directed to a receiving device (i.e., client 470), not a content transmitting device. Additionally, the receiving device of Omura detects the loss of data in a data stream and must send a request for re-transmission back to the content transmission device (i.e., server 400) regarding the loss data. In other words, the content transmission device (i.e., server 400) in Omura does not monitor and capture an interruption location.

Conversely, in the present invention (as recited in claim 1), the content transmission device monitors and captures an interruption location at which the content receiving device becomes unable to receive content, or an interruption location at which viewing and/or listening of content using the content receiving device has been interrupted; and transmits the loss data to the receiving device.

The content transmission device of the present invention differs from the system in Omura in that the content transmission device is not required to wait for a request for re-transmission of loss data from the receiving device. In other words, the content transmission

device makes an independent determination of loss data and transmits the data to the receiving device. Thus, Omura fails to disclose or suggest at least the following features of claim 1:

1) a content transmission device for use with, and to be connected with, a content receiving device over a network that includes an interruption location capturing unit that monitors and captures an interruption location at which the content receiving device becomes unable to receive content, or an interruption location at which viewing and/or listening of content using the content receiving device has been interrupted; and

2) a content transmission device for use with, and to be connected with, a content receiving device over a network that includes a transmission controlling unit that controls a transmission unit so as to transmit content in a storage unit to the content receiving device that corresponds to the interruption location captured by the interruption location capturing unit.

Therefore, independent claim 1 is clearly distinguished over Omura. Moreover, the Examiner did not rely on Kikuchi for disclosing the features noted above in claim 1. Additionally, after a detailed review of Kikuchi, the reference fails to overcome the deficiencies noted above in Omura. Accordingly, no combination of Omura and Kikuchi would result in, or otherwise render obvious, claim 1. Additionally, no combination of Omura and Kikuchi would result in, or otherwise render obvious, claims 2-6, 8 and 13-15 by virtue of their dependency from independent claim 1.

Additionally, for similar reasons noted above for claim 1, dependent claims 2-6 and 8 are believed to be distinguishable over Omura and Kirkuchi on their own merit. In particular, claims 2-6 and 8 are directed to additional features of the interruption location capturing unit and the transmission controlling unit, which are both components of the content transmission device. As noted above, the Examiner relies on Omura for disclosing all the features of the interruption location capturing unit and the transmission controlling unit. However, the features relied on by the Examiner in Omura are clearly directed to a receiving device, not a content transmission device (as recited in claims 2-6 and 8). Accordingly, dependent claims 2-6 and 8 are believed to be distinguished over Omura and Kirkuchi on their own merit.

In the Office Action, claims 7 and 9-10 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Omura in view of Kikuchi, and further in view of Gleissner et al. (U.S. Patent Publication No. 2004/0152054, hereafter “Gleissner”). Claims 7 and 9-10 depend from independent claim 1. As noted above, Omura and Kikuchi fail to disclose or suggest all the features recited in claim 1. Additionally, after a detailed review of Gleissner, the reference fails to overcome the deficiencies noted above in Omura and Kikuchi. Accordingly, no combination of Omura, Kikuchi and Gleissner would result in, or otherwise render obvious, claim 1, from which claims 7 and 9-10 depend.

In the Office Action, claim 17 has been rejected under 35 U.S.C. 103(a) as being unpatentable over Omura in view of Gleissner. In the Office Action, the Examiner relies on Omura for disclosing all the features of claim 17, except for the features of the interruption location capturing unit. However, the Examiner relies on Gleissner for disclosing these features. However, the Applicants maintain that Gleissner fails to disclose or suggest all the features of the interruption location capturing unit of claim 17.

In the Office Action, the Examiner alleges that Gleissner teaches “wherein said interruption location capturing unit captures the interruption reason for which the content receiving device became unable to receive content, or the interruption reason for which the user of said content receiving device interrupted viewing and/or listening with said content receiving device.” The Examiner's interpretation of Gleissner appears to be based on one embodiment of Gleissner, which discloses that an amount of time elapsed since the last playback session may be factored into the determination of where play should be restarted. For example, beginning at the start of the most recent sentence may be sufficient if playback has interrupted by, e.g., a two minute telephone call. However, it may be desirable to return to the beginning of, e.g., the current dialogue exchange if days have passed (see e.g. ¶ [0073]).

However, the Applicants respectfully disagree with the Examiner's interpretation of Gleissner. Specifically, Gleissner discloses instead that “an amount of time elapsed since the last playback session may be factored into the determination of where play should be restarted.” Thus, Gleissner intends to teach determination of restarting position based on an amount of

interruption time, which is not an interruption reason. Moreover, Gleinssner seems to describe determining where play should be restarted according to the amount of time elapsed since the last playback, that is, according to two-minutes or the days passed (not a telephone call or not).

Accordingly to the present invention, the transmission controlling unit determines the predetermined distance to retrace from the interruption location according to the interruption reason. For example, the status monitoring unit 1015 may capture the interruption reason along with capturing the interruption location. Content viewing and/or listening is interrupted by the content receiving device 102 being unable to receive content due to the communications status becoming bad, due to the user receiving a telephone call while viewing and/or listening to content, or the like. In such a case, user convenience is improved by the transmission control unit 1017 described below controlling the transmission of content from the content transmission device 101 to the content receiving device 102 according to the interruption reason as well as the interruption location.

The status monitoring unit 1015 captures the interruption reason, for example, as follows. When a response message, in reply to a control message, could not be received due to the communications status becoming bad, the status monitoring unit 1015 captures the interruption location based on the location at which the response message could not be received. In this example, the interruption reason, that "communications status went bad," is captured along with the capture of the interruption location.

Also, the status monitoring unit 1015 may receive the interruption reason from the content receiving device 102. For example, when a telephone call comes in to the portable telephone which is the content receiving device 102 and the user takes the call, the user must stop viewing and/or listening to content with the portable telephone. As the content receiving device 102 transmits to the status monitoring unit 1015 that there was an incoming call, the status monitoring unit 1015 captures the interruption reason, "incoming call" along with the interruption location. When a user is driving a vehicle, in which is installed a car navigation device that is the content receiving device 102, the user will interrupt viewing and/or listening of content with the car navigation device. As the content receiving device 102 notifies the status

monitoring unit 1015 that the user is driving, the status monitoring unit 1015 captures the interruption reason "driving" along with the interruption location.

Furthermore, the status monitoring unit 1015 may also capture the interruption reason according to the type of operation performed by the user on the content receiving device 102. For example, when the user presses the "Pause" button on the content receiving device 102, the status monitoring unit 1015 is notified of the type of operation by the content receiving device 102. The status monitoring unit 1015 thereby captures the interruption reason "Pause button pushed." The status monitoring unit 1015 then outputs the captured interruption reason to the interruption location memory unit 1016."(see e.g., Applicants' specification, pgs 16-17).

The transmission control unit 1017 of the present invention may control the transmitting and receiving unit 1014 so as to transmit content based on the interruption reason in the interruption location memory unit 1016. For example, the transmission control unit 1017 determines the predetermined location retraced from the interruption location for each interruption reason, e.g., as whether the user of the content receiving device 102 is driving or engaged in a telephone call. The transmission control unit 1017 controls the transmitting and receiving unit 1014 so as to transmit content from a location retraced by a predetermined location from the interruption location, based on the interruption reason, to the content receiving device 102. The transmission control unit 1017 may also store the retrace time for each interruption reason in a table established in advance.

For example, when the interruption reason is interrupted due to "a telephone call," the transmission control unit 1017 determines a location retraced a relatively long way from the interruption location, and controls the transmitting and receiving unit 1014 according to that determination. The transmitting and receiving unit 1014 transmits content from the location retraced by the amount determined by the transmission control unit 1017 to the content transmission device 102.

And, when the user interrupts content viewing and/or listening with the content receiving device 102 by engaging in a telephone call, the user is very likely to forget the content viewed and/or listened to prior to the telephone call. The user can view and/or listen to content while

grasping the flow of the content before and after the interruption location because of the transmitting and receiving unit 1014 of the content transmission device 101 transmitting content considerably prior to the interruption location. Thus, determining the predetermined location to retrace from the interruption location according to the interruption reason can provide improved convenience when the user uses the content receiving device 102."(see e.g., Applicants' Specification, pgs. 21 to 22).

Based on the above discussion, determining the distance to retrace according to the interruption reason is clearly different from determining the distance to retrace according to the amount of interruption time. Therefore, at least the following features of claim 17 are not believed to be disclosed or suggested by the cited prior art:

"wherein said interruption location capturing unit captures the interruption reason for which the content receiving device became unable to receive content, or the interruption reason for which the viewing and/or listening of content using the content receiving device has been interrupted; and said transmission controlling unit determines the predetermined distance to retrace from the interruption location according to said interruption reason, and controls said transmission unit to transmit content starting from the predetermined distance determined to the content receiving device." Accordingly, no combination of Omura and Gleissner would result in, or otherwise render obvious, the features recited in claim 17.

In light of the above, the Applicants respectfully submit that all the pending claims are patentable over the prior art of record. The Applicants respectfully request that the Examiner withdraw the rejections presented in the Office Action dated March 17, 2008, and pass this application to issue. The Examiner is invited to contact the undersigned attorney by telephone to resolve any remaining issues.

Respectfully submitted,

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